

Amendments to the Claims

1. (Currently amended) A laser-beam-scanned optical disc including an information recording area and an information management area, the information management area storing recording management information having portions corresponding to respective at least three different integer multiples of a normal velocity relating to scanning of the disc, wherein each of the portions of the recording management information contains a first information piece representative of a recording strategy being a time-domain recording laser waveform for recording of information on the information recording area and a second information piece representative of a recording laser power for recording of information on the information recording area.
2. (Currently amended) A laser-beam-scanned optical disc including an information recording area and an information management area, wherein units of signal recording and signal reproduction on and from at least one of the information recording area and the information management area are blocks including first blocks each duplicately having a block address and second blocks each having both a block address and a management information piece, the information recording area storing blocks among the first blocks, the information management area storing the second blocks having recording management information including portions corresponding to respective at least three different integer multiples of a normal velocity relating to scanning of the disc, wherein each of the portions of the recording management information contains a first information piece representative of a recording strategy being a time-domain recording laser waveform for recording of information on the information recording area and a second information piece representative of a recording laser power for recording of information on the information recording area.
3. (Currently amended) A laser-beam-scanned optical disc as recited in claim 1, wherein the information management area recurrently stores a whole of the portions of

the recording management information which correspond to the at least three different integer multiples of the normal velocity respectively.

4. (Currently amended) A laser-beam-scanned optical disc including an information recording area and an information management area, wherein units of signal recording and signal reproduction on and from at least one of the information recording area and the information management area are blocks including first blocks each duplicately having a block address and second blocks each having both a block address and a management information piece, the information recording area storing blocks among the first blocks, the information management area storing the second blocks recurrently having recording management information including portions corresponding to respective at least three different integer multiples of a normal velocity relating to scanning of the disc, wherein each of the recording management information contains a first information piece representative of a recording strategy being a time-domain recording laser waveform for recording of information on the information recording area and a second information piece representative of a recording laser power for recording of information on the information recording area, the information management area having a portion unoccupied by blocks among the second blocks and occupied by blocks among the first blocks.

5. (Currently amended) An apparatus for recording and reproducing information on and from a laser-beam-scanned optical disc including an information recording area and an information management area, the information management area storing recording management information having portions corresponding to respective at least three different integer multiples of a normal velocity relating to scanning of the disc, wherein each of the portions of the recording management information contains a first information piece representative of a recording strategy being a time-domain recording laser waveform for recording of information on the information recording area and a second information piece representative of a recording laser power for recording of information on the information recording area, the apparatus comprising:

first means for reading, from the information management area of the disc, one of the portions of the recording management information which corresponds to desired one of the ~~normal velocity and the at least one integer multiple~~ at least three different integer multiples of the normal velocity;

second means for setting an actual recording strategy and an actual recording power of a laser beam in accordance with the recording strategy and the recording laser power represented by the portion of the recording management information which is read by the first means; and

third means for recording information on the information recording area of the disc by use of the laser beam having the actual recording strategy and the actual recording power set by the second means.

6. (Currently amended) An apparatus for recording and reproducing information on and from a laser-beam-scanned optical disc including an information recording area and an information management area, wherein units of signal recording and signal reproduction on and from at least one of the information recording area and the information management area are blocks including first blocks each duplicately having a block address and second blocks each having both a block address and a management information piece, the information recording area storing blocks among the first blocks, the information management area storing the second blocks having recording management information including portions corresponding to respective at least three different integer multiples of a normal velocity relating to scanning of the disc, wherein each of the portions of the recording management information contains a first information piece representative of a recording strategy being a time-domain recording laser waveform for recording of information on the information recording area and a second information piece representative of a recording laser power for recording of information on the information recording area, the apparatus comprising:

first means for reading, from the information management area of the disc, one of the portions of the recording management information which corresponds to desired

one of the ~~normal velocity and the at least one integer multiple~~ at least three different integer multiples of the normal velocity;

second means for setting an actual recording strategy and an actual recording power of a laser beam in accordance with the recording strategy and the recording laser power represented by the portion of the recording management information which is read by the first means; and

third means for recording information on the information recording area of the disc by use of the laser beam having the actual recording strategy and the actual recording power set by the second means.

7. (Currently amended) An apparatus for recording and reproducing information on and from a laser-beam-scanned optical disc including an information recording area and an information management area, wherein units of signal recording and signal reproduction on and from at least one of the information recording area and the information management area are blocks including first blocks each duplicately having a block address and second blocks each having both a block address and a management information piece, the information recording area storing blocks among the first blocks, the information management area storing the second blocks recurrently having recording management information including portions corresponding to respective at least three different integer multiples of a normal velocity relating to scanning of the disc, wherein each of the recording management information contains a first information piece representative of a recording strategy being a time-domain recording laser waveform for recording of information on the information recording area and a second information piece representative of a recording laser power for recording of information on the information recording area, the information management area having a portion unoccupied by blocks among the second blocks and occupied by blocks among the first blocks, the apparatus comprising:

first means for reading, from the information management area of the disc, one of the portions of the recording management information which corresponds to desired

one of the ~~normal velocity and the at least one integer multiple~~ at least three different integer multiples of the normal velocity;

second means for setting an actual recording strategy and an actual recording power of a laser beam in accordance with the recording strategy and the recording laser power represented by the portion of the recording management information which is read by the first means; and

third means for recording information on the information recording area of the disc by use of the laser beam having the actual recording strategy and the actual recording power set by the second means.

8. (Currently amended) A method of recording and reproducing information on and from a laser-beam-scanned optical disc including an information recording area and an information management area, the information management area storing recording management information having portions corresponding to respective at least three different integer multiples of a normal velocity relating to scanning of the disc, wherein each of the portions of the recording management information contains a first information piece representative of a recording strategy being a time-domain recording laser waveform for recording of information on the information recording area and a second information piece representative of a recording laser power for recording of information on the information recording area, the method comprising the steps of:

reading, from the information management area of the disc, one of the portions of the recording management information which corresponds to desired one of the ~~normal velocity and the at least one integer multiple~~ at least three different integer multiples of the normal velocity;

setting an actual recording strategy and an actual recording power of a laser beam in accordance with the recording strategy and the recording laser power represented by the portion of the recording management information which is read; and

recording information on the information recording area of the disc by use of the laser beam having the actual recording strategy and the actual recording power which are set.

9. (Currently amended) A method of recording and reproducing information on and from a laser-beam-scanned optical disc including an information recording area and an information management area, wherein units of signal recording and signal reproduction on and from at least one of the information recording area and the information management area are blocks including first blocks each duplicately having a block address and second blocks each having both a block address and a management information piece, the information recording area storing blocks among the first blocks, the information management area storing the second blocks having recording management information including portions corresponding to respective at least three different integer multiples of a normal velocity relating to scanning of the disc, wherein each of the portions of the recording management information contains a first information piece representative of a recording strategy being a time-domain recording laser waveform for recording of information on the information recording area and a second information piece representative of a recording laser power for recording of information on the information recording area, the method comprising the steps of:

reading, from the information management area of the disc, one of the portions of the recording management information which corresponds to desired one of the ~~normal velocity and the at least one integer multiple~~ at least three different integer multiples of the normal velocity;

setting an actual recording strategy and an actual recording power of a laser beam in accordance with the recording strategy and the recording laser power represented by the portion of the recording management information which is read; and

recording information on the information recording area of the disc by use of the laser beam having the actual recording strategy and the actual recording power which are set.

10. (Currently amended) A method of recording and reproducing information on and from a laser-beam-scanned optical disc including an information recording area

and an information management area, wherein units of signal recording and signal reproduction on and from at least one of the information recording area and the information management area are blocks including first blocks each duplicately having a block address and second blocks each having both a block address and a management information piece, the information recording area storing blocks among the first blocks, the information management area storing the second blocks recurrently having recording management information including portions corresponding to respective at least three different integer multiples of a normal velocity relating to scanning of the disc, wherein each of the recording management information contains a first information piece representative of a recording strategy being a time-domain recording laser waveform for recording of information on the information recording area and a second information piece representative of a recording laser power for recording of information on the information recording area, the information management area having a portion unoccupied by blocks among the second blocks and occupied by blocks among the first blocks, the method comprising the steps of:

reading, from the information management area of the disc, one of the portions of the recording management information which corresponds to desired one of the ~~normal velocity and the at least one integer multiple~~ at least three different integer multiples of the normal velocity;

setting an actual recording strategy and an actual recording power of a laser beam in accordance with the recording strategy and the recording laser power represented by the portion of the recording management information which is read; and

recording information on the information recording area of the disc by use of the laser beam having the actual recording strategy and the actual recording power which are set.